

# **ACTION PLAN TO PREVENT TURTLE PREDATION AT BIBRA LAKE.**

Prepared by The Wetlands Conservation Society and Turtle Trackers. (21/07/24)  
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This is an example of the extensive media coverage of this issue.

## ***At it again***

***by Steve Grant***

Excerpt from the Melville Herald (31 May, 2024)

*FOXES have been caught red-handed continuing their attacks on Bibra Lake's vulnerable snake-necked turtles.*

*Last week while Bibra Lake Turtle Tracker Paul Markendale watched on helplessly from the shore, a fox dug up two aestivating (hibernating) turtles in the middle of the lake and devoured what they could.*

*It follows the trackers' discovery earlier this month of 96 turtle carcasses which showed signs of being attacked by the feral pests ("Foxes blamed for turtle deaths," Herald, May 4, 2024).*

*Bibra Lake Turtle Trackers Co-ordinator Joyce Gadalon told the Herald it was depressing to pass World Turtle Day on May 24 with the prospect of the local population being predated out of existence by the foxes.*

*"Foxes have continued to be sighted at the lake this week as it appears the City is unable to stop turtle death from happening," Ms Gadalon said.*

*"Save Our Snake-Necked Turtles recovered an additional nine turtle carcasses from the lake bed last week and a further five carcasses were found by turtle trackers in bushland surrounding the lake at the same time."*

*Ms Gadalon said other than Mr Markendale's encounter, trackers had sighted two other foxes around the lake during May.*

*"There are now questions being raised on whether the council are meeting their obligations of controlling foxes under WA's Biosecurity and Agriculture Management Act 2007 which requires all land owners and managers to control foxes found on their land," she said.*

*"Bibra Turtle Trackers are frustrated at the time it has taken local council and government agencies to action welfare checks on the remaining turtles in the lake and whether any more can be done to protect them."*

*But Ms Gadalon said a meeting between the trackers and the council prompted by their speaking out had gone well.*

## ***Support***

*She said questions asked by staff showed there was support for the Trackers within the council, but they were still finding it hard to generate action.*

## **BACKGROUND.**

During Perth's long hot dry summer over 120 South-Western Snake-Necked Turtles (*Chelodina oblonga*) were killed by foxes at Bibra Lake. Foxes are also very likely to have killed half the Fairy

Tern colony at nearby Pt Walter.

A Foxwatch program was set up at Pt Walter, whereby volunteers staked out the Spit during the night hours when tides were low, to prevent fox access. This was successful at Pt Walter on that narrow strip of land, but is not a practical strategy for a large open area like Bibra Lake, nor should this issue be left to volunteers to solve.

At Bibra Lake, and other lakes in the Beeliar system, fox predation is both a cause of turtle deaths, and a symptom of the drying of the lakes, caused by the long-term decline in rainfall in the SW of WA. Turtles aestivate over summer in the mud, and an increasingly dry lake bed provides the perfect opportunity for fox predation.

As climate change effects are only going to increase, this is a serious long-term problem for turtles, migratory shorebirds and all the other denizens of these productive lake systems.

Thus this Action Plan will commence with climate change adaptation strategies, and conclude with the issues of fox control and turtle welfare.

## **WATER SUPPLEMENTATION.**

Water supplementation is already in place at Yangebup and Thomson's Lakes. Water quality issues can be addressed by testing, and by nutrient stripping programs such as those which already operate at Yangebup Lake and the Bartram Road buffer lakes.

The most cost-effective way to supplement Bibra Lake would be via Yangebup Lake, using existing Water Corporation drainage pipes that already connect the two lakes. Currently, excess water is simply pumped in to Cockburn Sound.

The principle would be to maintain historical water levels in Bibra Lake, which is replenished by groundwater on a seasonal basis. Drying of the lake in summer is normal; extreme drying is not and needs to be addressed.

## **BUILDING A MOAT.**

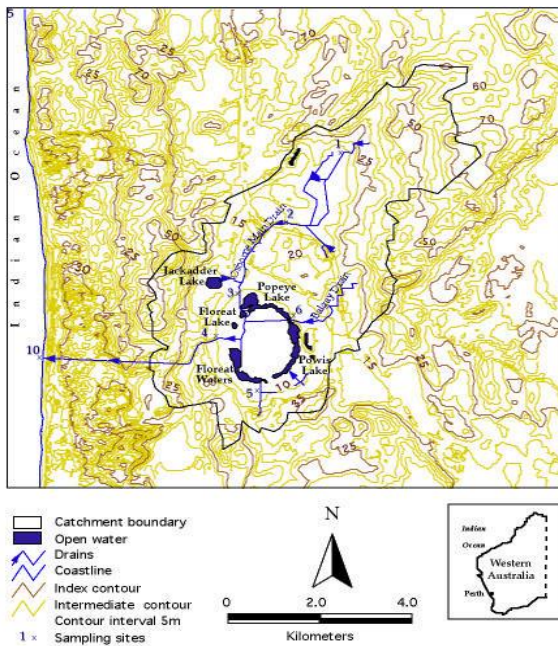
The problem of maintaining sufficient water in a lake on our coastal plain, as well as the problem of deterring predators, has been addressed at one of Perth's premier sites for aquatic wildlife, Herdsman Lake. As described by the Urban Bushland Council:

*Herdsman Lake contains an inner wetland (approximately 160 hectares in area) which is dominated by Bulrush (Typha orientalis) and a dredged outer moat consisting of four deep permanent water bodies (Floreat Waters, Popeye Lake, Powis Lake and Floreat Lakes) joined by small channels restricting access to the central conservation area.*

These moats successfully retain water during the summer, but still allow for the creation of mudflats used by migratory shorebirds and other species in the summer.

There is already a deep trench in Bibra Lake that could be extended to create a central island surrounded by a moat.

As with water supplementation, environmental engineering of this nature needs to be subject to testing, in this case of the lake's sediments.



The moats at Herdsman Lake contain water all year round.

## FOX CONTROL.

Ad hoc council programs will not be effective, as foxes will quickly reoccupy territories vacated by fox control. A coordinated response is needed, at the South West Metropolitan Alliance or WALGA level. There is no shortage of experienced fox controllers, but offering contracts to the lowest bidder is likely to produce inadequate results.

Fox eradication should occur on a quarterly basis, over a 10 day period for each quarter. Ideally, each council region would have only one or two contractors to allow for proper coordination between councils.

Cameras have also been used effectively at Lake Claremont to monitor foxes and allow accurate reporting of fox activities to the authorities.

There are numerous examples of intensive feral animal control programs being successful in WA, allowing populations of native animals to re-establish and flourish. The approach cannot be piecemeal however, and must become part of regular management strategies for councils and land managers. As the overall environmental managers of the Beeliar Regional Park, DBCA needs to oversee and contribute to this program.

## TURTLE WELFARE.

There are a range of welfare strategies, undertaken by qualified wildlife carers, which can assist turtles by focussing on hatchling success, and the rehabilitation of sick or emaciated adult turtles. Some of this is already underway at Bibra Lake.

In terms of conservation, these strategies are a last resort, and should not substitute for water supplementation, or the other strategies outlined in this report to prevent deaths of mature turtles.

## **TRAFFIC MANAGEMENT.**

South-Western Snake-Necked Turtles, like other turtles, face particular issues during the breeding season, as they leave their preferred habitat and laboriously cross land to lay their eggs. The volunteer group, Turtle Trackers, have been assisting turtles during the breeding season, but traffic strikes are unfortunately common, and result in increased mortality of females. This can lead to a problematic gender imbalance in the turtle population.

There are a range of traffic calming initiatives which can be employed seasonally or permanently, and the public needs to be educated that roads around wetlands should have reduced speed limits. Traffic calming is desirable on Hope Road, Progress Drive and Bibra Drive.

Another option which would assist turtle breeding is creating favourable turtle nesting habitat closer to the lake.

## **LOCAL EXTINCTION.**

If action is not taken, then South-Western Snake-Necked Turtles are at risk of local extinction. This has already occurred at some wetlands, such as the Ramsar-listed Forrestdale Lake. If this occurs at Bibra and other lakes in the Beeliar Regional Park then other species such as waterbirds and frogs will also decline due to the extended seasonal drying of the lakes, and ongoing fox predation. Turtle deaths at Bibra Lake jumped by about 500% on previous summers in 2023/24, which shows how drastic the effects of climate change can be, and underlines the urgent need for effective action.

## **APPENDICES.**

The Wetlands Conservation Society and Turtle Trackers are in the process of developing supplementary information packages on water supplementation, fox control and turtle welfare, which will be available shortly.

## **REFERENCES.**

Melville Herald 31/05/24, 'At it again', <[heraldonlinejournal.com/2024/05/31/at-it-again](https://heraldonlinejournal.com/2024/05/31/at-it-again)>

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